Patent Application Number: 10/042,987

Attorney Docket Number: A1651-US-NP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Robert R. **BUCKLEY** et al. **GROUP**: 2157

SERIAL NO: **10/042,987** **EXAMINER**: S. Halim

FILED: January 11, 2002 **CONFIRMATION:** 5864

FOR: **METHOD FOR DOCUMENT VIEWING**

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Sir:

SUPPLEMENTAL REPLY BRIEF FOR APPELLANTS

This Supplemental Reply Brief is being submitted in response to the Examiner's Answer dated February 7, 2006 in connection with the above-identified application.

I. STATUS OF CLAIMS

Claims 1-6 were originally presented in this application. Claims 7-16 were added in the Response dated February 25, 2005. Claims 1-6 have subsequently been canceled without prejudice or disclaimer to the subject matter contained therein. Claim 7-16 remain pending in the present application. Claim 7-16 are appealed.

II. GROUNDS OF REJECTION TO BE REVIEWED

A. Rejection under 35 U.S.C. §102(b) over Dekel et al.

The issue is whether claims 7-10 and 12-15 are patentable over Dekel et al. (US-A-6,314,452) according to 35 U.S.C. §102(b).

III. ARGUMENTS

A. Rejection under 35 U.S.C. §102(b) over Dekel et al.

Claims 7-10 and 12-15 have been rejected under 35 U.S.C. §102(b) as being anticipated by Dekel et al. (US-A-6,314,452). This rejection under 35 U.S.C. §102(b) over Dekel et al. is respectfully traversed.

In formulating the rejection under 35 U.S.C. §102(b), the Examiner alleges that Dekel et al. teaches a client-side device that requests a section of a document from a server-side device and the server-side device receives the request. The Examiner further alleges that Dekel et al. teaches that the server-side device retrieves the requested document; identifies, in the retrieved document, the requested section; and converts the identified section into a wavelet compressed image. Lastly, the Examiner alleges that Dekel et al. teaches the server-side device communicates the wavelet compressed image to the client-side device, which decompresses the received wavelet compressed image and displays the decompressed document section. From these allegations, the Examiner concludes that the presently claimed invention is anticipated by Dekel et al. These positions and conclusion by the Examiner are respectfully traversed.

CLAIM 7

The presently claimed invention, as set forth in independent claim 7, recites that the server-side device rasterizes **the *identified* section of the *requested* non-rasterized document**. Furthermore, the presently claimed inve ntion, as set forth in independent claim 7, recites that the server-side device compresses the rasterized section of **the *requested* non-rasterized document** into a compressed image having the identified compression format corresponding to the compression format requested by the client-side device. In contrast, Dekel et al. clearly teaches that the requested **non-rasterized** document is compressed, **without any rasterization**.

In other words, the presently claimed invention, as set forth in independent claim 7, take advantage of the server-side computing power to optimize the hardware/software solution for transmitting/transferring documents to a client device that requires a particular compression format. To realize this optimization, the presently claimed invention brings all documents to a common format, a rasterized document. The presently claimed invention then compresses the rasterized document according to the compression format information received from the client device in the initial document request. It is the client device's degree of freedom to choose the compression format which drives the need to convert a requested document to a rasterized document before compression.

In contrast, Dekel et al. teaches, at column, 22, lines 38-49:

With reference to FIG. 8, the operation of the server computer 120 (FIG. 1) will now be described. Initially, an uncompressed digital image is stored in, for example, storage 122 of the server computer 120. This uncompressed digital image may be a two-dimensional image, stored with a selected resolution and depth. For example, in the medical field, the uncompressed digital image may be contained in a DICOM file. In the graphic arts field, the uncompressed image may be, for example, in the Tiff standard format or a result of a RIP (Raster Image Processing) algorithm converting a postscript file to a raster image.

As clearly taught in the above passage from Dekel et al., the stored uncompressed digital image may be of a variety of types, with a raster image being only one such possible type and a non-raster image being another possible type. In the case of a raster image, Dekel et al. fails to teach that the raster image was created from **the *identified* section of the *requested* non-rasterized document**, as set forth by independent claim 7. More specifically, Dekel et al. teaches that a variety of images are pre-stored on the server in a variety types or formats. Dekel et al. further teaches that the requested image, notwithstanding its type or format, is directly compressed.

In other words, Dekel et al. teaches, at column, 22, lines 37-49, that if the ***requested*** image is a stored raster image, it is compressed and sent to the requester. Furthermore, Dekel et al. teaches, at column, 22, lines 37-49, that if the ***requested*** image is a non-raster image it is compressed **(without rasterization)** and sent to the requester. Therefore, Dekel et al. fails to teach that if the ***requested*** image or

document is a non-raster image or document, it is rasterized prior to compression and transmission.

More specifically, depending upon the requested compression format, the system of Dekel et al. would have to first select the proper document-type/compression-format algorithm to create a document according to the compression format information received from the client device in the initial document request. In other words, if the system of Dekel et al. stored five different document types and provided six different compression formats, the system of Dekel et al. would be required to have the capacity to execute a maximum of thirty distinct document-type/compression-format algorithms, an algorithm for each document-type compression-format combination.

On the other hand, the presently claimed invention, by rasterizing all non-rasterized documents before compression, can realize a server that stores five different document types and provides six different compression formats wherein the server would be required to have capacity to execute a maximum of six distinct compression-format algorithms, an algorithm for each compression format because all the different document types have been converted to a universal document type, a rasterized document, thereby reducing the number of distinct compression-format algorithms.

The Appellants previously argued that independent claim 7 recites that the server-side device **rasterizes** the identified section of **the requested non-rasterized document before** compressing the (rasterized) section of the requested non-rasterized document into a compressed image having the identified compression format corresponding to the client-side device.

In response thereto, the Examiner states that claim 7 does not recite, "if the requested image or document is a non-rasterized document, it is rasterized prior to compression and transmission." Although the Examiner is technically correct to state that the specific language is not in claim 7, the limitation argued by the Appellants is set forth in claim 7.

More specifically, independent claim 7 states, "generating a request from a client-side device to be sent to a server-side device, the request identifying a non-rasterized document, a section of the non-rasterized document to be sent to the client-side device, and a compression format corresponding to the client-side device." Furthermore,

independent claim 7 states, "the server-side device retrieving, in response to receiving the request from the client-side device, the requested non-rasterized document and identifying the requested section of the requested non-rasterized document." In other words, the server-side device retrieves a ***requested* non-rasterized document** and identifies the requested section of the ***requested* non-rasterized document** Therefore, from these two limitations, the claimed invention of claim 7 has retrieved a ***requested*non-rasterized document**.

Upon retrieving the ***requested* non-rasterized document**, independent claim 7 states, "the server-side device rasterizing the identified section of the requested non-rasterized document." In other words, according to claim 7, the rasterization process does not take place before the non-rasterized document has been **requested** from a client-side device, because claim 7 specifically, states that the identified section of the ***requested*non-rasterized document** is rasterized. Claim 7 does not generically state that a non-rasterized document is rasterized because claim 7 expressly calls for the rasterization of a distinct document, namely the identified section of the ***requested*non-rasterized document**.

After the identified section of the requested non-rasterized document is rasterized, independent claim 7 states, "the server-side device compressing the rasterized section of the ***requested* non-rasterized document** into a compressed image having the identified compression format corresponding to the client-side device." In other words, according to claim 7, the compression process does not take place before the non-rasterized document **requested** from a client-side device has been rasterized, because claim 7 specifically, states that the rasterized section of the ***requested* non-rasterized document** is compressed. Claim 7 does not generically state compression any time because claim 7 expressly calls for the compression of a distinct document, namely the rasterized section of the ***requested* non-rasterized document**.

In contrast, Dekel et al. teaches that a variety of images are pre-stored on the server in a variety types or formats. Dekel et al. further teaches that any of these images can be selected. Lastly, Dekel et al. teaches that the selected document is compressed.

Dekel et al. fails to teach that if a **non-rasterized** document is requested, the requested **non-rasterized** document is rasterized because Dekel et al. teaches that the requested **non-rasterized** image is compressed without rasterization.

More specifically, Dekel et al. fails to teach that if a DICOM file is requested (a DICOM file is a **non-rasterized** file that contains both a header (which stores information about the patient's name, the type of scan, image dimensions, etc), as well as all of the image data (which can contain information in three dimensions)), is rasterized before compression.

Moreover, Dekel et al. fails to teach that if a TIFF file is requested (a TIFF file is a **non-rasterized** compressed file that contains run-length encoding and tables), is rasterized before compression.

The Examiner appears to contend that the language of claim 7 does not correlate rasterization with the selection of a non-rasterized document. The Appellants recognize that Dekel et al. teaches that the stored images can be raster images; however, Dekel et al. fails to teach that if a non-raster image; e.g., a DICOM file; is requested, this image is rasterized. In other words, Dekel et al. fails to teach a correlation between the request of a non-raster image; e.g., a DICOM file; and rasterization.

Claim 7 specifically sets forth the rasterization of a **requested non-rasterized** document or image. Thus, a request for the image must have happened a priori to the rasterization of the requested image.

If the Examiner desires to continue to contend that Dekel et al. teaches the rasterization of a requested non-raster image, the Examiner is respectfully requested to specifically point out the explicit language in Dekel et al. that teaches the rasterization of a requested non-raster image.

More specifically, the Examiner is respectfully requested to specifically point out the explicit language in Dekel et al. that teaches the rasterization of a requested DICOM image before compression and transmission. Alternatively, the Examiner is respectfully requested to specifically point out the explicit language in Dekel et al. that teaches the rasterization of a requested TIFF image before compression and transmission.

In summary, the presently claimed invention has optimized the server side processes by reducing the number of document-type/compression-format algorithms needed to provide the client device with a document in the requested compression format. To realize this optimization, the presently claimed invention converts all requested server-side documents to a rasterized document and then compresses the rasterized document in the requested format.

Moreover, Dekel et al. fails to teach that the server-side device rasterizes the identified section of the ***requested* non-rasterized document**, as set forth in independent claim 7. Moreover, Dekel et al. fails to teach that the server-side device compresses the **rasterized** section of the ***requested* non-rasterized document** into a compressed image having the identified compression format corresponding to the client-side device, as set forth in independent claim 7.

CLAIM 12

The presently claimed invention, as set forth in independent claim 12, recites that the server-side device rasterizes **the *requested* non-rasterized document** Furthermore, the presently claimed invention, as set forth in independent claim 12, recites that the server-side device compresses the rasterized document into a compressed image having the identified compression format corresponding to the client-side device. In contrast, Dekel et al. clearly teaches that the requested **non-rasterized** document is compressed, **without any rasterization**.

In other words, the presently claimed invention, as set forth in independent claim 12, take advantage of the server-side computing power to optimize the hardware/software solution for transmitting/transferring documents to a client device that requires a particular compression format. To realize this optimization, the presently claimed invention brings all documents to a common format, a rasterized document. The presently claimed invention then compresses the rasterized document according to the compression format information received from the client device in the initial document request. It is the client device's degree of freedom to choose the

compression format which drives the need to convert a requested document to a rasterized document before compression.

Furthermore, Dekel et al. teaches, at column, 22, lines 38-49:

With reference to FIG. 8, the operation of the server computer 120 (FIG. 1) will now be described. Initially, an uncompressed digital image is stored in, for example, storage 122 of the server computer 120. This uncompressed digital image may be a two-dimensional image, stored with a selected resolution and depth. For example, in the medical field, the uncompressed digital image may be contained in a DICOM file. In the graphic arts field, the uncompressed image may be, for example, in the Tiff standard format or a result of a RIP (Raster Image Processing) algorithm converting a postscript file to a raster image.

As clearly taught in the above passage from Dekel et al., the stored uncompressed digital image may be of a variety of types, with a raster image being only one such possible type and a non-raster image being another possible type.

In the case of a raster image, Dekel et al. fails to teach that the raster image was created from **the *identified* section of the *requested* non-rasterized document**, as set forth by independent claim 7. More specifically, Dekel et al. teaches that a variety of images are pre-stored on the server in a variety types or formats. Dekel et al. further teaches that the requested image, notwithstanding its type or format, is directly compressed.

In other words, Dekel et al. teaches, at column, 22, lines 37-49, that if the ***requested*** image is a stored raster image, it is compressed and sent to the requester. Furthermore, Dekel et al. teaches, at column, 22, lines 37-49, that if the ***requested*** image is a non-raster image it is compressed **(without rasterization)** and sent to the requester. Therefore, Dekel et al. fails to teach that if the ***requested*** image or document is a non-raster image or document, it is rasterized prior to compression and transmission.

More specifically, depending upon the requested compression format, the system of Dekel et al. would have to first select the proper document-type/compression-format algorithm to create a document according to the compression format information received from the client device in the initial document request. In other words, if the system of Dekel et al. stored five different document types and provided six different compression formats, the system of Dekel et al. would be required to have the capacity

to execute a maximum of thirty distinct document-type/compression-format algorithms, an algorithm for each document-type compression-format combination.

On the other hand, the presently claimed invention, by rasterizing all non-rasterized documents before compression, can realize a server that stores five different document types and provides six different compression formats wherein the server would be required to have capacity to execute a maximum of six distinct compression-format algorithms, an algorithm for each compression format because all the different document types have been converted to a universal document type, a rasterized document, thereby reducing the number of distinct compression-format algorithms.

The Appellants previously argued that independent claim 12 recites that the server-side device **rasterizes the requested non-rasterized document before** compressing the rasterized requested non-rasterized document into a compressed image having the identified compression format corresponding to the client-side device.

More specifically, independent claim 12 states, "generating a request from a client-side device to be sent to a server-side device, the request identifying a non-rasterized document and a compression format corresponding to the client-side device." Furthermore, independent claim 12 states, "the server-side device retrieving, in response to receiving the request from the client-side device, the requested non-rasterized document." In other words, the server-side device retrieves a ***requested* non-rasterized document**. Therefore, from these two limitations, the claimed invention of claim 12 has retrieved a ***requested* non-rasterized document**.

Upon retrieving the ***requested* non-rasterized document**, independent claim 12 states, "the server-side device rasterizing the requested non-rasterized document." In other words, according to claim 12, the rasterization process does not take place before the non-rasterized document has been **requested** from a client-side device, because claim 12 specifically, states that the ***requested* non-rasterized document** is rasterized. Claim 12 does not generically state that a non-rasterized document is rasterized because claim 12 expressly calls for the rasterization of a distinct document, namely the ***requested* non-rasterized document**.

After the requested non-rasterized document is rasterized, independent claim 12 states, "the server-side device compressing the **rasterized document** into a compressed image having the identified compression format corresponding to the client-side device." In other words, according to claim 12, the compression process does not take place before the non-rasterized document **requested** from a client-side device has been rasterized, because claim 12 specifically, states that the **rasterized document** is compressed. Claim 12 does not generically state compression any time because claim 12 expressly calls for the compression of a distinct document, namely the **rasterized document**.

In contrast, Dekel et al. teaches that a variety of images are pre-stored on the server in a variety types or formats. Dekel et al. further teaches that any of these images can be selected. Lastly, Dekel et al. teaches that the selected document is compressed.

Dekel et al. fails to teach that if a **non-rasterized** document is requested, the requested **non-rasterized** document is rasterized because Dekel et al. teaches that the requested **non-rasterized** image is compressed without rasterization.

More specifically, Dekel et al. fails to teach that if a DICOM file is requested (a DICOM file is a **non-rasterized** file that contains both a header (which stores information about the patient's name, the type of scan, image dimensions, etc), as well as all of the image data (which can contain information in three dimensions)), is rasterized before compression.

Moreover, Dekel et al. fails to teach that if a TIFF file is requested (a TIFF file is a **non-rasterized** compressed file that contains run-length encoding and tables), is rasterized before compression.

The Examiner appears to contend that the language of claim 12 does not correlate rasterization with the selection of a non-rasterized document. The Appellants recognize that Dekel et al. teaches that the stored images can be raster images; however, Dekel et al. fails to teach that if a non-raster image; e.g., a DICOM file; is requested, this image is rasterized. In other words, Dekel et al. fails to teach a

correlation between the request of a non-raster image; e.g., a DICOM file; and rasterization.

Claim 12 specifically sets forth the rasterization of a **requested non-rasterized** document or image. Thus, a request for the image must have happened a priori to the rasterization of the requested image.

If the Examiner desires to continue to contend that Dekel et al. teaches the rasterization of a requested non-raster image, the Examiner is respectfully requested to specifically point out the explicit language in Dekel et al. that teaches the rasterization of a requested non-raster image.

More specifically, the Examiner is respectfully requested to specifically point out the explicit language in Dekel et al. that teaches the rasterization of a requested DICOM image before compression and transmission. Alternatively, the Examiner is respectfully requested to specifically point out the explicit language in Dekel et al. that teaches the rasterization of a requested TIFF image before compression and transmission.

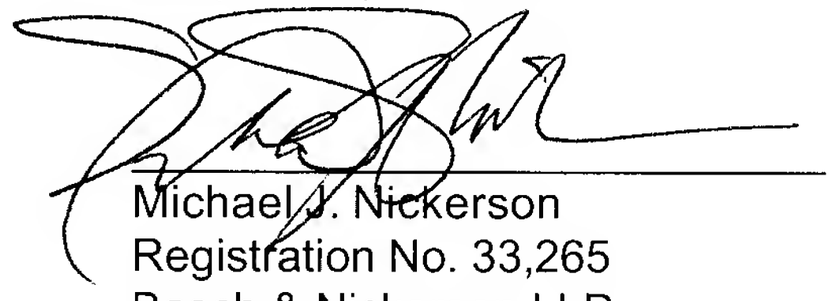
In summary, the presently claimed invention has optimized the server side processes by reducing the number of document-type/compression-format algorithms needed to provide the client device with a document in the requested compression format. To realize this optimization, the presently claimed invention converts all requested server-side documents to a rasterized document and then compresses the rasterized document in the requested format.

Moreover, Dekel et al. fails to teach that the server-side device rasterizes the ***requested*** **non-rasterized document**, as set forth in independent claim 12. Moreover, Dekel et al. fails to teach that the server-side device compresses the **rasterized document** into a compressed image having the identified compression format corresponding to the client-side device, as set forth in independent claim 12.

IV. CONCLUSION

Accordingly, for all the reasons set forth above, the Appellants respectfully request that Honorable Board is respectfully reverse the Examiner's outstanding rejection and remand the application back to the Examiner for the issuance of a Notice of Allowance.

Respectfully submitted,



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V. CLAIMS APPENDIX

7. A method for viewing, on a client-side device, documents requested from a server-side device, the client-side device and server-side device having a communication link therebetween, comprising:

(a) generating a request from a client-side device to be sent to a server-side device, the request identifying a non-rasterized document, a section of the non-rasterized document to be sent to the client-side device, and a compression format corresponding to the client-side device;

(b) the server-side device retrieving, in response to receiving the request from the client-side device, the requested non-rasterized document and identifying the requested section of the requested non-rasterized document;

(c) the server-side device rasterizing the identified section of the requested non-rasterized document;

(d) the server-side device compressing the rasterized section of the requested non-rasterized document into a compressed image having the identified compression format corresponding to the client-side device;

(e) the server-side device communicating the compressed image to the client-side device;

(f) the client-side device decompressing the received compressed image; and

(g) the client-side device displaying the decompressed image.

8. The method as claimed in claim 7, wherein the compression format corresponds to a wavelet compression.

9. The method as claimed in claim 8, wherein the wa velet compression is done in accordance with a JPEG2000 standard.

10. The method as claimed in claim 7, wherein the communication link between the client-side device and the server-side device is wireless.

11. The method as claimed in claim 7, wherein said client-side device is a handheld device.

12. A method for viewing, on a client-side device, documents requested from a server-side device, the client-side device and server-side device having a communication link therebetween, comprising:

(a) generating a request from a client-side device to be sent to a server-side device, the request identifying a non-rasterized document and a compression format corresponding to the client-side device;

(b) the server-side device retrieving, in response to receiving the request from the client-side device, the requested non-rasterized document;

(c) the server-side device rasterizing the requested non-rasterized document;

(d) the server-side device compressing the rasterized document into a compressed image having the identified compression format corresponding to the client-side device;

(e) the server-side device communicating the compressed image to the client-side device;

(f) the client-side device decompressing the received compressed image; and

(g) the client-side device displaying the decompressed image.

13. The method as claimed in claim 12, wherein the compression format corresponds to a wavelet compression.

14. The method as claimed in claim 13, wherein the wavelet compression is done in accordance with a JPEG2000 standard.

15. The method as claimed in claim 12, wherein the communication link between the client-side device and the server-side device is wireless.

16. The method as claimed in claim 12, wherein said client-side device is a handheld device.

VI. EVIDENCE APPENDIX

NONE

VII. RELATED PROCEEDINGS APPENDIX

NONE